ABSTRACT OF THE DISCLOSURE

An active implantable medical device such as a cardiac pacemaker, defibrillator, cardiovertor and/or multisite device that is able to determine and average a hemodynamic index parameter. The intracardiac impedance signal is correlated to the instantaneous blood flow, and is used to determine periodically an average hemodynamic index (D_{ave}) evaluated over several cardiac cycles under certain preset measurement conditions. For example, the preset conditions include checking that the state of the patient and of the device satisfies, the criteria (stages 12-20) defining predetermined measurement conditions, and inhibiting the determination of the aforesaid hemodynamic index if these criteria are not satisfied. A plurality of samples (Z_{ij}) of the measured impedance signal are collected over a length of time (T_i) of the systole of one cardiac cycle. Using the aforesaid samples, a value (D_i) representative of the blood volume ejected throughout this systole is determined by integrating the samples over the time period. Then, average hemodynamic index (D_{ave}) is calculated from a plurality of such integrated sample values successively determined over a plurality (N_2) of cardiac cycles.